



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Frank O'Bannon  
Governor

Lori F. Kaplan  
Commissioner

August 20, 2003

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P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

TO: Interested Parties / Applicant

RE: Milestone Contractors, L.P. / 157-17425-05062

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot 8/11/03

August 20, 2003

Mr. Ron Terrel  
Milestone Contractors, L. P.  
P. O. Box 421459  
Indianapolis, IN 46242-1459

Re: 157-17425-05062  
First Significant Permit Revision to  
FESOP 157-14106-05062

Dear Mr. Terrel:

Milestone Contractors, L. P. was issued a FESOP on February 14, 2002 for a stationary asphalt pavement production plant. A letter requesting changes to this permit was received on April 2, 2003. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

Milestone Contractors, L.P. has submitted a request to:

- (a) remove one (1) 1.33 MMBtu/hr natural gas or No. 2 fuel oil fired hot oil heater, identified as heater 12,
- (b) remove one (1) of 27,000 gallon horizontal liquid asphalt storage tank, identified as Tank 13A,
- (c) add one (1) 1.86 MMBtu/hr natural gas or No. 2 fuel oil fired hot oil heater, to be identified as heater 12, and
- (d) add two (2) new 20,000 gallon vertical liquid asphalt storage tanks, to be identified as Tanks 13A and 16A.

The proposed equipment will not cause any increases in production or emissions from the existing units.

Therefore, the emissions generated by the proposed modification are the particulate matter (PM), PM10, volatile organic compound (VOC), carbon monoxide (CO), and hazardous air pollutant (HAP) emissions generated by the proposed tanks and the combustion emissions from the proposed heater.

The estimated PM, PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, single HAP, and combined HAP UPTE (0.17, 0.17, 4.13, 1.16, 0.79, 0.76, <10, and 0.03 tons per year) are less than their respective 326 IAC 2-8-11.1(d) Minor Permit Revision low end applicable levels of 5, 5, 10, 10, 10, 25, 10, and 25 tons per year, there are no changes to any existing conditions that are required, and there are no new applicable requirements that are triggered.

However, the re-refined oil usage limit has been adjusted to ensure that the source SO<sub>2</sub> emissions are still less than their respective Part 70 applicable level of 100 tons per year.

Establishing these limits as federally enforceable, requires public notification. Since neither an Administrative Amendment nor a Minor Permit Revision require public notification, it is determined that adding the proposed limits cannot be accomplished via these approvals.

Therefore, the proposed modification shall be incorporated into the existing FESOP via a Significant Permit Revision pursuant to 326 IAC 2-8-11.1(f)(1) which states changes to an existing source FESOP that are not an Administrative Amendment or a Minor Permit Revision shall be incorporated into the existing source FESOP via a Significant Permit Revision.

To incorporate the proposed tanks and other proposed changes into the existing FESOP, the following changes shall be made. All added language is indicated in bold type. All deleted information is struck-out.

**(1) Condition A.3:**

Condition A.3 shall be revised as follows to remove existing heater 12, add new heater 12, remove existing Tank 13A, and add new tanks 13A and 16A.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) three (3) asphalt storage tank heaters, identified as emission unit Nos. 13B, 14B, and 15B, each burning natural gas or No. 2 distillate fuel oil, each rated at 0.634, 0.630, and 0.630 MMBtu per hr, respectively, and each exhausting at one (1) stack, identified as SV3B, SV4B, SV5B, respectively;
- (b) two (2) hot oil heaters, identified as emission unit Nos. 12 and 22, each burning natural gas or No. 2 distillate fuel oil, ~~each~~ **rated at 1.3331.86 and 2.82 MMBtu per hour, respectively, and each with emissions** exhausting ~~at one (1) stack;~~ **through Stacks** identified ~~as~~ SV2 and SV8, **respectively;**
- (c) ~~three (3)~~ **(32)** liquid asphalt storage tanks, identified as Tanks ~~13A, 14A and 15A,~~ each with a maximum storage capacity of 27,000 gallons, ~~and each with emissions exhausted at through one (1) stacks, identified as SV3A, SV4A, and SV5A, respectively, and two (2)~~ **20,000 gallon liquid asphalt storage tanks, identified as Tanks 13A and 16A, with emissions exhausted through Stacks SV3A and SV6A, respectively;**

.....

**(2) Condition D.1.6:**

The re-refined oil usage limit was reduced in the original draft to 1,476,699 gallons per consecutive 12 month period to keep the source a FESOP source.

After the public comment period, Milestone proposed a fuel use limit equivalent to 90 tons per year of SO<sub>2</sub> to allow future minor increases in SO<sub>2</sub> emissions without having to go through a significant permit revision.

To reduce the source SO<sub>2</sub> emissions to 90 tons per year, the re-refined fuel use limit shall be further reduced to 1,313,508 gallons per consecutive 12 month period.

To incorporate this new limit into the permit, Condition D.1.6 shall be revised as follows.

D.1.6 Re-refined Waste Oil and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the sulfur content of the re-refined waste oil used in the 121 MMBtu per hour burner for the aggregate dryer shall not exceed 0.75 percent.
- (b) the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~1,476,699~~ **13,508** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO<sub>2</sub> emissions are limited below ~~100~~ **90** tons per year. ....

**(3) Condition D.1.7:**

No changes to the natural gas limit established in the original FESOP was necessary to keep the source a FESOP source after the proposed modification.

After the public comment period, Milestone proposed a fuel use limit equivalent to 90 tons per year of NOx to allow future minor increases in NOx emissions without having to go through a significant permit revision.

To reduce the source NOx emissions to 90 tons per year, the natural gas use limit shall be reduced from 680.14 MMcf per consecutive 12 month period to 611 MMcf per consecutive 12 month period.

To incorporate this new limit into the permit, Condition D.1.7 shall be revised as follows.

**D.1.7 Natural Gas and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]**

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the usage of natural gas and natural gas equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~680.14~~**111** million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NOx emissions are limited below ~~100~~**90** tons per year. ....

**(4) Unit Description of Section D.3:**

The unit description of Section D.3 shall be amended as follows to include proposed tanks 13A and 16A.

**SECTION D.3 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:**

Insignificant Activity

- (~~a~~) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);
- (b) two (2) 20,000 gallon liquid asphalt storage tanks, identified as Tanks 13A and 16A, with emissions exhausted through Stacks SV3A and SV6A, respectively;**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**(5) New Condition D.3.2:**

New Condition D.3.2 shall be added as follows to include the 40 CFR 60, Subpart Kb requirements associated with Tanks 13A and 16A.

**D.3.2 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]**

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the owner or operator shall, for Tanks 13A and 16A, keep readily accessible records showing the dimension and capacity of the storage tanks.

Said records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit except that the records shall be kept for the life of the respective tanks.

**(6) Re-refined Oil Usage Quarterly Report Form:**

The re-refined oil usage quarterly report form shall be amended as follows to reflect the most recent re-refined oil usage limit.

Limit: the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~1,476,699~~**313,508** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.6(c) shall be used.

**(7) Natural Gas Usage Quarterly Report Form:**

The natural gas usage quarterly report form shall be amended as follows to reflect the most recent natural gas usage limit.

Limit: the usage of natural gas and natural gas equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~680.14~~**11** million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.7(b) shall be used.

**(8) Condition D.1.9:**

Condition D.1.9 shall be changed as follows to correct the language of the last paragraph of the condition.

D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensable PM-10.
- (b) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.1.4.

This test shall be repeated ~~at least once every~~ five (5) years from the date of this **most recent** valid compliance demonstration. **All** testing shall be conducted in accordance with Section C-Performance Testing.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027 and ask for Scott Fulton or extension 3-5691, or dial (317) 233-5691.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments  
SDF

cc: File - Tippecanoe County  
U.S. EPA, Region V  
Tippecanoe County Health Department  
Air Compliance Section Inspector - Wanda Stanfield  
Compliance Data Section - Karen Nowak  
Administrative and Development  
Technical Support and Modeling - Michele Boner

# **FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY**

**Milestone Contractors, L.P.  
2903 State Road 25 North  
Lafayette, Indiana 47905**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F157-14106-05062	
Original Issued By: Paul Dubenetzky, Branch Chief, Office of Air Quality	Issuance Date: February 25, 2002 Expiration Date: February 25, 2007
First Significant Permit Revision No.: 157-17425-05062	Affected Pages: 2, 3, 4, 5, 6, 25, 26, 27, 28, 29, 30, 33, 37, and 38
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issued: August 20, 2003

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D.2.2 Record Keeping Requirements

D.2.3 Reporting Requirements

## **SECTION D.3 FACILITY OPERATION CONDITIONS**

### **Insignificant Activity - Degreasing**

#### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.3.1 Volatile Organic Compounds (VOC)

D.3.2 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]

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### **ATTACHMENT A - ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary drum mix asphalt pavement production plant.

Authorized Individual: Ron Terrell, Senior Manager, Asphalt Plants  
Source Address: 2903 State Road 25 North, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
SIC Code: 2951  
County Location: Tippecanoe  
County Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under PSD Rule;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) one (1) aggregate drum mix dryer, identified as emission unit No. 2, with a maximum capacity of 500 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 121 million (MM) British thermal units (Btu) per hour using re-refined waste oil and No. 2 distillate fuel oil as back-up fuels and one (1) cyclone and jetpulse baghouse in series for air pollution control, exhausting at one (1) stack, identified as SV1;
- (b) one (1) drag slat conveyor, three (3) feed conveyors, and one (1) screen; and
- (c) cold-mix (stockpile mix) asphalt storage piles.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) three (3) asphalt storage tank heaters, identified as emission unit Nos. 13B, 14B, and 15B, each burning natural gas or No. 2 distillate fuel oil, each rated at 0.634, 0.630, and 0.630 MMBtu per hr, respectively, and each exhausting at one (1) stack, identified as SV3B, SV4B, SV5B, respectively;
- (b) two (2) hot oil heaters, identified as emission unit Nos. 12 and 22, each burning natural gas or No. 2 distillate fuel oil, rated at 1.86 and 2.82 MMBtu per hour, respectively, with emissions exhausting through Stacks SV2 and SV8, respectively;
- (c) two (2) liquid asphalt storage tanks, identified as Tanks 14A and 15A, each with a maximum storage capacity of 27,000 gallons, with emissions exhausted through stacks SV4A, and SV5A, respectively, and two (2) 20,000 gallon liquid asphalt storage tanks, identified as Tanks 13A and 16A, with emissions exhausted through Stacks SV3A and SV6A, respectively;

- (e) one (1) re-refined waste oil storage tank, identified as Tank 17, with a maximum storage capacity of 18,000 gallons, exhausting at one (1) stack, identified as SV7;
- (f) one (1) cold feed system consisting of eight (8) compartments;
- (g) four (4) hot mix asphalt cement storage silos, each with a maximum storage capacity of 300 tons;
- (h) one (1) Reclaimed Asphalt Pavement (RAP) feed system;
- (i) one (1) dust storage bin;
- (j) aggregate storage piles, with a maximum storage capacity of 64,794 tons;
- (k) two (2) asphalt emulsion storage tanks, identified as Tanks 23 and 25, each with a maximum storage capacity of 21,000 and 19,000 gallons, respectively, and each exhausting at one (1) stack, identified as SV9 and SV11, respectively;
- (l) one (1) asphalt cutback storage tank, identified as Tank 24, with a maximum storage capacity of 17,000 gallons, exhausting at one (1) stack, identified as SV10;
- (m) propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6.0 MMBtu per hr;
- (n) combustion source flame safety purging on startup;
- (o) a petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;
- (p) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (q) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (r) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);
- (s) cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;
- (t) closed loop heating and cooling systems;
- (u) paved and unpaved roads and parking lots with public access; and
- (v) a laboratory as defined in 326 IAC 2-7-1(20)(C).

#### A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

#### A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) one (1) aggregate drum mix dryer, identified as emission unit No. 2, with a maximum capacity of 500 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 121 million (MM) British thermal units (Btu) per hour using re-refined waste oil and No. 2 distillate fuel oil as back-up fuels and one (1) cyclone and jetpulse baghouse in series for air pollution control, exhausting at one (1) stack, identified as SV1;
- (b) one (1) drag slat conveyor, three (3) feed conveyors, and one (1) screen;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart I.

#### D.1.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 19.10 pounds per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM emissions from the mixing and drying operations to 83.65 tons per year for a source-wide total potential to emit of less than 250 tons per year. Therefore, this limit will also render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

#### D.1.3 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the aggregate mixing and drying operation shall not exceed 0.03 pound of PM-10 per ton of asphalt mix. This is equivalent to a PM-10 emission limit of 14.76 pounds per hour, including both filterable and condensable fractions based on a maximum throughput of 500 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM-10 emissions from the aggregate mixing and drying operation to 64.65 tons per year for a source-wide total potential to emit of less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply. This limit will also render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

#### D.1.4 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

#### D.1.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 121 million Btu per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil.

- (b) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 121 million Btu per hour burner for the aggregate dryer shall be limited to 1.6 pounds per million Btu heat input or a sulfur content of less than or equal to 1.3 percent when using re-refined waste oil. The source has accepted a sulfur content limit of 0.75 percent for re-refined waste oil.
- (c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.6 Re-refined Waste Oil and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the sulfur content of the re-refined waste oil used in the 121 MMBtu per hour burner for the aggregate dryer shall not exceed 0.75 percent.
- (b) the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to 1,313,508 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO<sub>2</sub> emissions are limited below 90 tons per year.
- (c) For purposes of determining compliance, the following shall apply:
  - (1) every MMCF of natural gas burned shall be equivalent to 5.4 gallons of re-refined waste oil based on SO<sub>2</sub> emissions, such that the total gallons of re-refined waste oil and re-refined waste oil equivalent input does not exceed the limit specified; and
  - (2) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 712 gallons of re-refined waste oil based on SO<sub>2</sub> emissions, such that the total gallons of re-refined waste oil and re-refined waste oil equivalent input does not exceed the limit specified.

Therefore, the requirements of 326 IAC 2-7 will not apply. This limit will also render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

D.1.7 Natural Gas and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the usage of natural gas and natural gas equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to 611 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NO<sub>x</sub> emissions are limited below 90 tons per year.
- (b) For purposes of determining compliance, the following shall apply:
  - (1) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.0857 MMcf of natural gas based on NO<sub>x</sub> emissions and 0.5 percent sulfur content of the fuel oil, such that the total input of natural gas and natural gas equivalent input does not exceed the limit specified.
  - (2) every 1,000 gallons of re-refined waste oil burned shall be equivalent to 0.0679 MMcf of natural gas based on NO<sub>x</sub> emissions and 0.75 percent sulfur content of the fuel oil, such that the total input of natural gas and natural gas equivalent input does not exceed the limit specified.

Therefore, the requirements of 326 IAC 2-7 will not apply. This limit will also render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

**D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

- (a) During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensable PM-10.
- (b) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.1.4.

This test shall be repeated five (5) years from the date of the most recent valid compliance demonstration. All testing shall be conducted in accordance with Section C- Performance Testing.

**D.1.10 Sulfur Dioxide Emissions and Sulfur Content**

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input when burning No. 2 distillate fuel oil and 1.6 pounds per million Btu heat input when burning re-refined waste oil by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 121 MMBtu per hour burner for the aggregate dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

**D.1.11 Particulate Matter (PM)**

In order to comply with conditions D.1.2, D.1.3, and D.1.4, the baghouse for PM control shall be in operation and control emissions at all times when aggregate mixing and drying are in operation.

## **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **D.1.12 Visible Emissions Notations**

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- (a) Visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust, and the conveyors and transfer points, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

### **D.1.13 Parametric Monitoring**

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The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, mixer, and burner, at least once per shift when the aggregate dryer, mixer, or burner is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

### **D.1.14 Baghouse Inspections**

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An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer, mixer, and burner when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

### **D.1.15 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:



- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

##### **D.1.16 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.5, D.1.6, and D.1.7, the Permittee shall maintain records in accordance with (1) through (7) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual re-refined waste oil and re-refined waste oil equivalent usage per month since last compliance determination period and equivalent SO<sub>2</sub> emissions;
  - (3) Actual natural gas and natural gas equivalent usage per month since last compliance determination period and equivalent NO<sub>x</sub> emissions;
  - (4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (5) Fuel supplier certifications.
- (6) The name of the fuel supplier; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in condition D.1.10. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM.

- (c) To document compliance with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust once per shift.
- (d) To document compliance with Condition D.1.13, the Permittee shall maintain the following:
  - (1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle operation.
- (e) To document compliance with Condition D.1.14, the Permittee shall maintain records of the results of the inspections required under Condition D.1.14.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.17 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.6 and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### D.1.18 Used Oil Requirements

The waste oil burned in the aggregate dryer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

## **SECTION D.3 FACILITY OPERATION CONDITIONS**

### **Facility Description [326 IAC 2-8-4(10)]:**

#### Insignificant Activity

- (a) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);
- (b) two (2) 20,000 gallon liquid asphalt storage tanks, identified as Tanks 13A and 16A, with emissions exhausted through Stacks SV3A and SV6A, respectively;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.3.2 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the owner or operator shall, for Tanks 13A and 16A, keep readily accessible records showing the dimension and capacity of the storage tanks.

Said records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit except that the records shall be kept for the life of the respective tanks.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Milestone Contractors, L.P.  
Source Address: 2903 State Road 25 North, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F157-14106-05062  
Facility: 121 MMBtu per hour aggregate dryer burner  
Parameter: Re-refined waste oil and equivalent usage limit to limit SO<sub>2</sub> emissions  
Limit: the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to 1,313,508 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.6(c) shall be used.

YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + Column 2	
	Re-refined waste oil and equivalent usage this month (gallons)		Re-refined waste oil and equivalent usage previous 11 months (gallons)		12 month total Re-refined waste oil and equivalent usage (gallons)	
	Waste Oil	Equiv.	Waste Oil	Equiv.	Waste Oil	Equiv.
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Milestone Contractors, L.P.  
Source Address: 2903 State Road 25 North, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F157-14106-05062  
Facility: 121 MMBtu per hour aggregate dryer burner  
Parameter: Natural gas and equivalent usage limit to limit NOx emissions  
Limit: the usage of natural gas and natural gas equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to 611 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.7(b) shall be used.

YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + Column 2	
	Natural gas and equivalent usage this month (MMCF)		Natural gas and equivalent usage previous 11 months (MMCF)		12 month total Natural gas and equivalent usage (MMCF)	
	Natural Gas	Equiv.	Natural Gas	Equiv.	Natural Gas	Equiv.
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for Construction and Operation Status

Source Name: Milestone Contractors, L.P.  
Source Location: 2903 State Road 25 North, Lafayette, Indiana 47905  
County: Tippecanoe  
SIC Code: 2951  
Operation Permit No.: F157-14106-05062  
Date Issued: February 25, 2002  
1<sup>st</sup> Significant Permit Revision No.: 157-17425-05062  
Permit Reviewer: SDF

On June 24, 2003, the Office of Air Quality (OAQ) had a notice published in the Journal and Courier, located in Lafayette, Indiana, stating that Milestone Contractors, L.P. had applied for a permit to construct and operate proposed heater 12 and liquid asphalt storage tanks 13A and 16A, and remove existing heater 12 and existing liquid asphalt storage tank 13A. The notice also stated that the OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 10, 2003, Milestone Contractors, L.P. submitted comments on the proposed permit. The comments and the corresponding responses are as follows:

#### **(a) Comment 1:**

Milestone disagrees with the calculations of increased emissions from the additional storage of liquid asphalt cement. The equations utilized for this calculation are found in Table 11.1-14 (Silo filling) of AP-42. Silo filling relates to the storage of hot mix asphalt (final product) which has no increased capacity under this revision as the rating of the facility remains at 500 tons per hour. Storage (in tanks) of liquid asphalt cement (raw material) does not correlate with storage (in silos) of hot mix asphalt (final product).

#### **Response 1:**

To determine the liquid asphalt storage emissions from the proposed tanks, the compound percentages in Table 11.1-16 were used. Foot note "a" of Table 11.1-16 states that the emission factor for the compounds in Table 11.1-16 is determined by multiplying the percentages presented in Table 11.1-16 by the applicable emission factors for total organic compounds as determined from Table 11.1-14.

Table 11.1-16 lists the compound percentages for silo filling "and" asphalt storage tank emissions and does not provide a means of distinguishing one from the other. The silo filling emission factors from Table 11.1-14 only provide emission factors for silo filling and drum mix or batch mix plant load-out. The drum mix or batch mix plant load-out emission factors do not apply. Therefore, the only option available is the use of the silo filling emission factors.

Since there are no other sources of emission factors and the foot note of Table 11.1-16 only allows use of the applicable emission factors of Table 11.1-14, the only emission factors that can be used are the silo filling emission factors. Further, since AP-42 does not state that the only emission factor applicable to the asphalt storage tanks is TOC, the worst case emissions (total PM, TOC, and CO) had to be used to determine the unrestricted potential to emit.

Therefore, the emission calculations are determined to be correct. No changes will be made.

**(b) Comment 2:**

Per the potential increase of emissions from the new hot oil heater, Milestone requests a voluntary limit of 90.0 tons of SO<sub>2</sub> and NO<sub>x</sub> emissions. This request will reduce the fuel oil and natural gas permit limits. This will also allow future insignificant activities changes under an administrative amendment as opposed to a significant revision.

**Response 2:**

The limits shall be adjusted as requested.

To reduce the source SO<sub>2</sub> emissions to 90 tons per year, the re-refined oil usage or it's equivalent shall be limited to a rate that is equivalent to 90 tons per year less the SO<sub>2</sub> emissions from the existing heater emissions (not including the mixing and drying combustion SO<sub>2</sub> emissions) (13.43 tons/yr), less the SO<sub>2</sub> emissions due to the proposed modification (4.13 tons/yr).

$$\begin{aligned} X \text{ gal/yr} * 110.3 \text{ lb/1000 gal} * 1/2000 \text{ tons/lb} &= [90.00 \text{ tons/yr} - 13.43 \text{ tons/yr} - 4.13 \text{ tons/yr}] \\ &= 72.44 \text{ tons SO}_2\text{/yr} \\ X &= 1,313,508 \text{ gallons re-refined oil/yr} \end{aligned}$$

The re-refined oil usage limit shall be reduced from 1,468,359 gallons per year to 1,313,508 gallons per year.

Reducing the fuel use limitation and applying all emission controls will reduce the mixing and drying operation PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, single HAP, and combined HAP emissions to 0.05, 0.04, 72.44, 12.48, 0.66, 3.28, <10, and 19.32 tons per year.

To reduce the source NO<sub>x</sub> emissions to 90 tons per year, the natural gas usage or it's equivalent shall be limited to a rate that is equivalent to 90 tons per year less the NO<sub>x</sub> emissions from the existing heater emissions (not including the mixing and drying combustion NO<sub>x</sub> emissions) (3.78 tons/yr), less the NO<sub>x</sub> emissions due to the proposed modification (1.16 tons/yr), and taking into account the emissions associated with the removal of existing heater 13 (0.58 ton/yr).

$$\begin{aligned} X \text{ MMcf/yr} * 280 \text{ lb/MMcf} * 1/2000 \text{ ton/lb} &= [90.00 \text{ tons/yr} - 3.78 \text{ tons/yr} - 1.16 \text{ tons/yr} + 0.58 \\ &\quad \text{ton/yr}] \\ &= 85.64 \text{ tons/yr} \\ X &= 611 \text{ MMcf/yr} \end{aligned}$$

Reducing the natural gas use limitation and applying all emission controls will reduce the mixing and drying operation combustion PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, single HAP, and combined HAP emissions to neg., neg., 0.18, 85.54, 1.68, 25.66, <10, and 8.79 tons per year.

The natural gas usage limit shall be reduced from 624 MMcf/yr to 611 MMcf/yr.

The worst case emissions from the mixing and drying operations after application of the limits is listed below.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Re-refined Oil	<b>0.05</b>	<b>0.04</b>	<b>72.44</b>	12.48	0.66	3.28	<10	<b>19.32</b>
Natural Gas	neg.	neg.	0.18	<b>85.54</b>	<b>1.68</b>	<b>25.66</b>	<10	8.79

The source emissions after application of the proposed limitations are listed below.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Mix and Dry Combustion	0.05	0.04	72.44	85.54	1.68	25.66	<10	19.32
Other Source Emissions	240.59	51.69	13.43	3.78	97.13	2.22	<10	neg.
Proposed Tanks and Heater	0.17	0.17	4.13	1.16	0.79	0.76	<10	0.03
Removal of Heater 13*	-0.01	-0.04	-neg.	-0.58	-0.01	-0.21	-	-0.0003
<b>Source</b>	<b>240.80</b>	<b>51.86</b>	<b>90.00</b>	<b>89.90</b>	<b>99.59</b>	<b>28.43</b>	<b>&lt;10</b>	<b>19.35</b>

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25

\* The removal of hot oil heater 12 will reduce the source PTE. The following calculations determine the emission reductions. The hot oil heater will generate emissions from the combustion of either natural gas or No. 2 fuel oil.

- (a) The source, after construction and operation of the proposed modification and implementation of the new fuel use limits, is still not a major PSD stationary source because no criteria pollutant emissions are greater than the applicable level or 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This source, after construction and operation of the proposed modification and implementation of the new fuel use limits, is still not a Part 70 major stationary source because no criteria pollutants exceed the applicable level of 100 tons per year and the single and combined HAP emissions are less than the respective applicable levels of 10 and 25 tons per year.

To incorporate the proposed limit changes into the existing source permit, the following changes shall be made. All additional language is indicated in bold type. All deleted information is struck-out.

**(1) Condition D.1.6:**

Condition D.1.6 shall be amended as follows to revise the re-refined oil usage limit from 1,476,699 gallons per consecutive 12 month period to 1,313,508 gallons per consecutive 12 month period.

D.1.6 Re-refined Waste Oil and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]  
Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:



- (a) the sulfur content of the re-refined waste oil used in the 121 MMBtu per hour burner for the aggregate dryer shall not exceed 0.75 percent.
- (b) the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~1,476,699~~**313,508** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO<sub>2</sub> emissions are limited below ~~400~~**90** tons per year. ....

**(2) Condition D.1.7:**

Condition D.1.7 shall be amended as follows to revise the natural gas usage limit from 680.14 MMcf per consecutive 12 month period to 611 MMcf per consecutive 12 month period.

D.1.7 Natural Gas and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the usage of natural gas and natural gas equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~680.14~~**611** million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NO<sub>x</sub> emissions are limited below ~~400~~**90** tons per year. ....

**(3) SO<sub>2</sub> Re-refined Oil and Equivalent Usage Limit, Quarterly Report :**

The SO<sub>2</sub> re-refined oil and equivalent usage limit quarterly report shall be amended as follows to reflect the new re-refined oil usage limit.

.....

Limit: the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~1,476,699~~**313,508** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.6(c) shall be used.

.....

**(4) NO<sub>x</sub> Natural Gas and Equivalent Usage Limit Quarterly Report :**

The NO<sub>x</sub> natural gas and equivalent usage limit quarterly report shall be amended as follows to reflect the new natural gas usage limit.

.....

Limit: the usage of natural gas and natural gas equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~680.14~~**611** million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.7(b) shall be used.

.....

**(c) Comment 3:**

Since a significant revision is already occurring, Milestone would like to request the following additional change:

Section D.1.9(a) - Modify the "During the period between 30-36 months after issuance of this permit" to "In the fifth year after the last valid stack test".....

### Response 3:

Condition D.1.9(a) states:

“During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensable PM-10.”

The last paragraph of Condition D.1.9 states:

“This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.”

Part (a) of Condition D.1.9 requires the owner or operator to perform an initial compliance stack test. The last paragraph requires the owner or operator to perform subsequent compliance stack tests.

This language is model language that is required in all permits. However, the last paragraph is determined to be incorrect because this part requires the owner or operator to perform tests every five years after the initial compliance test. As written, this part does not account for stack testing associated with modifications that are approved after the initial compliance stack test and prior to five years after the initial compliance stack test.

To correct this problem, the last paragraph needs to be written such that stack testing should be conducted five years from the most recent acceptable compliance stack test.

Therefore, the last paragraph of Condition D.1.9 shall be changed as follows:

This test shall be repeated ~~at least once every~~ five (5) years from the date of this **most recent** valid compliance demonstration. **All** testing shall be conducted in accordance with Section C- Performance Testing.

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)**

#### **Source Background and Description**

Source Name:	Milestone Contractors, L.P.
Source Location:	2903 State Road 25 North, Lafayette, Indiana 47905
County:	Tippecanoe
SIC Code:	2951
Operation Permit No.:	F157-14106-05062
Date Issued:	February 25, 2002
1 <sup>st</sup> Significant Permit Revision No.:	157-17425-05062
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed an application from Milestone Contractors, L.P. relating to the operation of their stationary drum mix asphalt pavement production plant.

#### **Request**

On April 2, 2003, Milestone Contractors, L.P. submitted a request to:

- (a) remove one (1) 1.33 MMBtu/hr natural gas or No. 2 fuel oil fired hot oil heater, identified as heater 12,
- (b) remove one (1) of 27,000 gallon horizontal liquid asphalt storage tank, identified as Tank 13A,
- (c) add one (1) 1.86 MMBtu/hr natural gas or No. 2 fuel oil fired hot oil heater, to be identified as heater 12, and
- (d) add two (2) new 20,000 gallon vertical liquid asphalt storage tanks, to be identified as Tanks 13A and 16A.

The proposed equipment will not cause any increases in production or emissions from the existing units.

Therefore, the emissions generated by the proposed modification are the particulate matter (PM), PM10, volatile organic compound (VOC), carbon monoxide (CO), and hazardous air pollutant (HAP) emissions generated by the proposed tanks and the combustion emissions from the proposed heater.

The estimated PM, PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, single HAP, and combined HAP UPTE (0.17, 0.17, 4.13, 1.16, 0.79, 0.76, <10, and 0.03 tons per year) are less than their respective 326 IAC 2-8-11.1(d) Minor Permit Revision low end applicable levels of 5, 5, 10, 10, 10, 25, 10, and 25 tons per year, there are no changes to any existing conditions that are required, and there are no new applicable requirements that are triggered.

However, the re-refined oil usage limit has been adjusted to ensure that the source SO<sub>2</sub> emissions are still less than their respective Part 70 applicable level of 100 tons per year.

Establishing these limits as federally enforceable, requires public notification. Since neither an Administrative Amendment nor a Minor Permit Revision require public notification, it is determined that adding the proposed limits cannot be accomplished via these approvals.

Therefore, the proposed modification shall be incorporated into the existing FESOP via a Significant Permit Revision pursuant to 326 IAC 2-8-11.1(f)(1) which states changes to an existing source FESOP that are not an Administrative Amendment or a Minor Permit Revision shall be incorporated into the existing source FESOP via a Significant Permit Revision.

### **Existing Approvals**

The source has been operating under first FESOP renewal 157-14106-05062, issued on February 25, 2002.

### **Recommendation**

The staff recommends to the Commissioner that the Significant Permit Revision be approved.

### **Emission Calculations**

The emissions generated by the proposed modification are the proposed tank PM, PM10, VOC, CO, and HAP emissions and the proposed heater combustion emissions. The following calculations determine the unrestricted potential to emit (UPTE) and emissions after controls due to the modification.

#### **(1) Unrestricted Potential to Emit (UPTE):**

##### **(a) Tank Emissions:**

The emissions generated by the proposed tanks are the storage tank filling and storage PM, PM10, VOC, CO, and HAP emissions. The following calculations determine these emissions.

The emissions are determined utilizing AP-42 emission factors which are based on a lb/ton basis. Therefore, before determining the emissions, it is necessary to determine the fraction increase in capacity, the maximum amount liquid asphalt produced per hour, and the maximum amount of liquid asphalt produced per hour that will be moved through the proposed tanks.

##### **Fraction Increase In Capacity:**

The current liquid asphalt storage capacity at Milestone is 81,000 gallons. Milestone is proposing removing one (1) 27,000 gallon storage tank and adding two (2) 20,000 gallon storage tanks. Therefore, the new storage capacity will be 94,000 gallons.

$$81,000 \text{ gallons} - 27,000 \text{ gallons} + 40,000 \text{ gallons} = 94,000 \text{ gallons.}$$

The fraction increase in capacity is estimated to be 0.43.

$$40,000 \text{ gallons} / 94,000 \text{ gallons} = 0.43$$

##### **Maximum Amount of Liquid Asphalt Produced Per Hour:**

The maximum amount of asphalt that can be produced is 500 tons per hour. AP-42 states that 8% of asphalt produced is liquid asphalt. Therefore, the maximum amount of liquid asphalt produced per hour is 40 tons/hr.

$$500 \text{ tons/hr} * 0.08 = 40 \text{ tons/hr}$$

### **Maximum Amount of Liquid Asphalt Produced Per Hour That Will Be Moved Through the Proposed Tanks:**

The maximum amount of liquid asphalt produced per hour that will be moved through the proposed tanks is the product of the estimated maximum amount of liquid asphalt produced per hour and the fraction increase in storage capacity, or 17.20 tons per hour.

$$40 \text{ tons/hr} * 0.43 = 17.20 \text{ tons/hr}$$

#### **(1) PM(PM10):**

The following calculations determine the PM(PM10) UPTE based on filling and storage emissions, a maximum amount of liquid asphalt of 17.20 tons/hr, AP-42 methodologies, emissions before controls, and 8760 hours of operation.

$$\begin{aligned} \text{Ef: } & 0.000332 + 0.00105 * (-V) * e((0.0251) * (T + 460) - 20.43) & = \\ & 0.000332 + 0.00105 * (-(-0.5)) * e((0.0251) * (325 + 460) - 20.43) & = 0.0006 \text{ lb/ton} \end{aligned}$$

where: Ef = emission factor (lb/ton)  
V = default asphalt volatility (-0.5)  
T = default temperature (325)

$$17.20 \text{ tons/hr} * 0.0006 \text{ lb PM/ton} * 1/2000 \text{ ton PM/lb PM} * 8760 \text{ hr/yr} = 0.05 \text{ tons/yr}$$

PM10 is determined to be equal to PM in this case.

#### **(2) VOC:**

The following calculations determine the VOC UPTE based on filling and storage emissions, a maximum amount of liquid asphalt of 17.20 tons/hr, AP-42 methodologies, emissions before controls, and 8760 hours of operation.

$$\begin{aligned} \text{Ef: } & 0.0504 * (-V) * e((0.0251) * (T + 460) - 20.43) & = \\ & 0.0504 * (-(-0.5)) * e((0.0251) * (325 + 460) - 20.43) & = 0.01 \text{ lb/ton} \end{aligned}$$

where: Ef = emission factor (lb/ton)  
V = default asphalt volatility (-0.5)  
T = default temperature (325)

$$17.20 \text{ tons/hr} * 0.01 \text{ lb VOC/ton} * 1/2000 \text{ ton VOC/lb VOC} * 8760 \text{ hr/yr} = 0.75 \text{ tons/yr}$$

#### **(3) CO:**

The following calculations determine the CO UPTE based on filling and storage emissions, a maximum amount of liquid asphalt of 17.20 tons/hr, AP-42 methodologies, emissions before controls, and 8760 hours of operation.

$$\begin{aligned} \text{Ef: } & 0.00488 * (-V) * e((0.0251) * (T + 460) - 20.43) & = \\ & 0.00488 * (-(-0.5)) * e((0.0251) * (325 + 460) - 20.43) & = 0.001 \text{ lb/ton} \end{aligned}$$

where: Ef = emission factor (lb/ton)  
V = default asphalt volatility (-0.5)  
T = default temperature (325)

$$17.20 \text{ tons/hr} * 0.001 \text{ lb CO/ton} * 1/2000 \text{ ton CO/lb CO} * 8760 \text{ hr/yr} = 0.08 \text{ tons/yr}$$

#### (4) Combined HAPs:

AP-42 states that the combined HAP emissions are 2.8% of the VOC emissions. The combined HAP emissions based on the AP-42 fraction of 2.8% is estimated to be 0.02 tons/yr.

$$0.028 * 0.75 \text{ tons/yr} = 0.02 \text{ tons/yr}$$

#### (b) Heater Combustion Emissions:

The following calculations determine the heater emissions based on a maximum capacity of 1.86 MMBtu/hr, the worst case emissions generated by natural gas or No. fuel oil combustion, AP-42 emission factors, and emissions before controls.

##### Natural Gas Combustion:

$$1.86 \text{ MMBtu/hr} * 1 \text{ MMcf/1000 MMBtu} * \text{Ef lb/MMcf} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{tons/yr}$$

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
lb/kgal	1.9	7.6	0.6	100.00	5.5	84.0	-	-
tons/yr	0.02	0.06	neg.	0.81	0.04	0.68	0.01	0.01

##### No. 2 Fuel Oil Combustion:

$$1.86 \text{ MMBtu/hr} * 1 \text{ gal/0.140 MMBtu} * 1 \text{ kgal/1000 gal} * \text{Ef lb/kgal} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{tons/yr}$$

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
lb/kgal	2.00	2.00	71.00	20.00	0.34	5.00	-	-
tons/yr	0.12	0.12	4.13	1.16	0.02	0.29	1.75 E-5	0.0003

##### Worst Case Emissions Generated By Combusting Natural gas or No. 2 Fuel Oil:

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
Natural Gas	0.02	0.06	neg.	0.81	<b>0.04</b>	<b>0.68</b>	<b>0.01</b>	<b>0.01</b>
No. 2 Fuel Oil	<b>0.12</b>	<b>0.12</b>	<b>4.13</b>	<b>1.16</b>	0.02	0.29	1.75 E-5	0.0003

A summary of the estimated UPTe due to the modification is listed below.

	PM (tons/yr)	PM10 (tons/yr)	SO <sub>2</sub> (tons/yr)	NO <sub>x</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Combined HAPS (tons/yr)
Tanks	0.05	0.05	-	-	0.75	0.08	<10	0.02
Combustion	0.12	0.12	4.13	1.16	0.04	0.68	<10	0.01
<b>Total</b>	<b>0.17</b>	<b>0.17</b>	<b>4.13</b>	<b>1.16</b>	<b>0.79</b>	<b>0.76</b>	<b>&lt;10</b>	<b>0.03</b>

## (2) Emissions After Controls:

All applicable emissions are uncontrolled.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.17
PM-10	0.17
SO <sub>2</sub>	4.13
VOC	0.79
CO	0.76
NO <sub>x</sub>	1.16

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Combined HAPs	0.03

The estimated PM, PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, single HAP, and combined HAP UPTE (0.17, 0.17, 4.13, 1.16, 0.79, 0.76, <10, and 0.03 tons per year) are less than their respective 326 IAC 2-8-11.1(d) Minor Permit Revision low end applicable levels of 5, 5, 10, 10, 10, 25, 10, and 25 tons per year, there are no changes to any existing conditions that are required, and there are no new applicable requirements that are triggered.

However, the re-refined oil usage limit has been adjusted to ensure that the source SO<sub>2</sub> emissions are still less than their respective Part 70 applicable level of 100 tons per year.

### Justification for Revision

Establishing the limits specified in the Potential to Emit Section as federally enforceable requires public notification. Since neither an Administrative Amendment nor a Minor Permit Revision require public notification, it is determined that adding the proposed limits cannot be accomplished via these approvals.

Therefore, the proposed modification shall be incorporated into the existing FESOP via a Significant Permit Revision pursuant to 326 IAC 2-8-11.1(f)(1) which states changes to an existing source FESOP that are not an Administrative Amendment or a Minor Permit Revision shall be incorporated into the existing source FESOP via a Significant Permit Revision.

### County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM <sub>10</sub>	attainment or unclassifiable
SO <sub>2</sub>	attainment or unclassifiable
NO <sub>2</sub>	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, the VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2.
- (b) Tippecanoe County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### Source Status

Source Emissions (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited), as obtained from the detailed emission calculations of FESOP 157-14106-05062, issued on February 25, 2002:

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Mix and Dry Combustion	0.06	0.05	85.57	95.22	1.87	28.57	<10	21.28
Mix and Dry Non-combustion	79.72	18.51	-	-	19.09	-	-	-
Tank and Hot Oil Heaters	0.38	0.62	13.43	3.78	0.15	2.22	<10	neg.
Conveying/Handling	2.24	1.06	-	-	-	-	-	-
Unpaved Roads	157.96	31.40	-	-	-	-	-	-
Aggregate Storage	0.29	0.10	-	-	-	-	-	-
Cold Mix VOC Storage	-	-	-	-	77.89	-	-	-
<b>Source</b>	<b>240.65</b>	<b>51.74</b>	<b>99.00</b>	<b>99.00</b>	<b>99.00</b>	<b>30.79</b>	<b>&lt;10</b>	<b>21.28</b>

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25



- (a) The mixing and drying operation PM emissions were limited in FESOP 157-14106-05062, under 40 CFR 60, Subpart I, to 0.04 gr/dscf which, combined with the other existing limitations and standards, and emission controls, reduced the source PM emissions to 240.65 tons per year.
- (b) The mixing and drying operation PM10 emissions were limited in FESOP 157-14106-05062, to 14.76 pounds per hour which, combined with the other existing limitations and standards, and emission controls, reduced the source PM10 emissions to 51.74 tons/yr.
- (c) In FESOP 157-14106-05062, the mixing and drying operation re-refined oil usage was limited to 1,552,290 U.S. gallons per consecutive twelve (12) consecutive month period which, combined with the other existing limitations and standards, limited the source SO2 emissions to 99.00 tons per year.
- (d) In FESOP 157-14106-05062, the mixing and drying operation natural gas usage was limited to 680.14 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis which, combined with the other existing limitations and standards, limited the source NOx emissions to 99.00 tons per year.
- (e) In FESOP 157-14106-05062, the amount of gelled asphalt with VOC solvent liquid binder used in the production of cold mix asphalt was limited to 3,116 tons per twelve (12) consecutive month period which, combined with the other existing limitations and standards, limited the source VOC emissions to 99.00 tons per year.
- (f) The existing source is not a major PSD stationary source because no criteria pollutant emissions are greater than the applicable level or 250 tons per year or more and it is not one of the 28 listed source categories.
- (g) The existing source is not a Part 70 major stationary source because no criteria pollutants exceed the applicable level of 100 tons per year and the single and combined HAP emissions are less than the respective applicable levels of 10 and 25 tons per year.

### Emissions After the Modification

Emissions after the modification based on emissions after controls and 8760 hours of operation per year at rated capacity, including all existing limitations and standards:

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Mix and Dry Combustion	0.06	0.05	85.57	95.22	1.87	28.57	<10	21.28
Other Source Emissions	240.59	51.69	13.43	3.78	97.13	2.22	<10	neg.
Proposed Tanks and Heater	0.17	0.17	4.13	1.16	0.79	0.76	<10	0.03
Removal of Heater 13*	-0.01	-0.04	-neg.	-0.58	-0.01	-0.21	-	-0.0003
<b>Source</b>	<b>240.81</b>	<b>51.87</b>	<b>103.13</b>	<b>99.58</b>	<b>99.78</b>	<b>31.34</b>	<b>&lt;10</b>	<b>21.31</b>

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25

\* The removal of hot oil heater 12 will reduce the source PTE. The following calculations determine the emission reductions. The hot oil heater will generate emissions from the combustion of either natural gas or No. 2 fuel oil.

The following calculations determine the heater emissions based on a maximum capacity of 1.33 MMBtu/hr, the least emissions generated by natural gas or No. fuel oil combustion, AP-42 emission factors, and emissions before controls.

#### Natural Gas Combustion:

$$1.33 \text{ MMBtu/hr} * 1 \text{ MMcf/1000 MMBtu} * \text{Ef lb/MMcf} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{tons/yr}$$

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
lb/kgal	1.9	7.6	0.6	100.00	5.5	84.0	-	-
tons/yr	0.01	0.04	neg.	0.58	0.03	0.49	0.01	0.01

#### No. 2 Fuel Oil Combustion:

$$1.33 \text{ MMBtu/hr} * 1 \text{ gal/0.140 MMBtu} * 1 \text{ kgal/1000 gal} * \text{Ef lb/kgal} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{tons/yr}$$

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
lb/kgal	2.00	2.00	71.00	20.00	0.34	5.00	-	-
tons/yr	0.08	0.08	2.95	0.83	0.01	0.21	1.75 E-5	0.0003

#### Least Emissions Generated By Combusting Natural gas or No. 2 Fuel Oil:

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
Natural Gas	<b>0.01</b>	<b>0.04</b>	<b>neg.</b>	<b>0.58</b>	0.03	0.49	0.01	0.01
No. 2 Fuel Oil	0.08	0.08	2.95	0.83	<b>0.01</b>	<b>0.21</b>	<b>1.75 E-5</b>	<b>0.0003</b>

The source SO2 PTE after the proposed modification (103.13 tons/yr) exceeds the Part 70 major source level of 100 tons per year. To remain a FESOP source, a reduction in SO2 emissions must be implemented.

To ensure that the source SO2 emissions do not exceed the allowable level of 99 tons per year, the re-refined oil usage or it's equivalent shall be limited to a rate that is equivalent to the emissions associated with the existing re-refined oil usage limit (85.57 tons per year) less the SO2 emissions due to the proposed modification (4.13 tons/yr).

$$\begin{aligned} X \text{ gal/yr} * 110.3 \text{ lb SO}_2/1000 \text{ gal} * 1/2000 \text{ tons SO}_2/\text{lb SO}_2 &= [85.57 \text{ tons SO}_2/\text{yr} - 4.13 \text{ tons SO}_2/\text{yr}] \\ &= 81.44 \text{ tons SO}_2/\text{yr} \end{aligned}$$

$$X = 1,476,699 \text{ gallons re-refined oil/yr}$$

The re-refined oil usage limit shall be reduced from 1,552,290 gallons per year to 1,476,699 gallons per year.

Reducing the fuel use limitation and applying all emission controls will also reduce the mixing and drying operation PM, PM10, SO2, NOx, VOC, CO, single HAP, and combined HAP emissions to 0.06, 0.05, 81.43, 14.03, 0.74, 3.69, <10, and 20.24 tons per year.

The revised worst case mixing and drying operation combustion emissions after the new re-refined oil usage limit and implementation of all existing limits and standards, based on the worst case pollutant emissions from the worst case fuels (natural gas and re-refined oil), are listed below.

	PM	PM10	SO2	NOx	VOC	CO	Worst Case Single HAP	Combined HAPS
Natural Gas	8.4E-4	3.4E-3	0.20	<b>95.22</b>	<b>1.87</b>	<b>28.57</b>	<b>&lt;10</b>	9.21
No. 2 Fuel Oil	<b>0.06</b>	<b>0.05</b>	<b>81.43</b>	14.03	0.74	3.69	<10	<b>20.24</b>

The revised source emissions after the modification based on emissions after controls and 8760 hours of operation per year at rated capacity, including all existing limitations and standards and the revised re-refined oil usage limit, is listed below.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Mix and Dry Combustion	0.06	0.05	81.43	95.22	1.87	28.57	<10	20.24
Other Source Emissions	240.59	51.69	13.43	3.78	97.13	2.22	<10	neg.
Proposed Tanks and Heater	0.17	0.17	4.13	1.16	0.79	0.76	<10	0.03
Removal of Heater 13*	-0.01	-0.04	-neg.	-0.58	-0.01	-0.21	-	-0.0003
<b>Source</b>	<b>240.81</b>	<b>51.87</b>	<b>98.99</b>	<b>99.58</b>	<b>99.78</b>	<b>31.34</b>	<b>&lt;10</b>	<b>20.27</b>

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25

- (a) The source, after construction and operation of the proposed modification, including the revised re-refined oil usage limit, is still not a major PSD stationary source because no criteria pollutant emissions are greater than the applicable level or 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This source, after construction and operation of the proposed modification, including the revised re-refined oil usage limit, is still not a Part 70 major stationary source because no criteria pollutants exceed the applicable level of 100 tons per year and the single and combined HAP emissions are less than the respective applicable levels of 10 and 25 tons per year.

### Federal Rule Applicability

#### (a) New Source Performance Standards (NSPS):

- (1) This source is still subject to New Source Performance Standard, 40 CFR 60, Subpart I. The proposed equipment will have no impact on the current requirements.
- (2) The existing source tanks are still not subject to 40 CFR 60, Subparts K, Ka, and Kb. The proposed equipment will have no impact on the current requirements.

- (3) Proposed tanks 13A and 16A are not subject to the requirements of 40 CFR 60, Subpart K, "Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978" because the tanks will be constructed after the applicable date of May 19, 1978.
- (4) Proposed tanks 13A and 16A are not subject to the requirements of 40 CFR 60, Subpart Ka, "Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984" because the tanks will be constructed after the applicable date of July 23, 1984.
- (5) Proposed tanks 13A and 16A are subject to the requirements of 40 CFR 60, Subpart Kb, "Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984" because each tank's capacity (20,000 gallons) is greater than the applicable level of 10,567 gallons (40 cubic meters).

Pursuant to 40 CFR 60.110b(c), each tank with a capacity greater than or equal to 75 cubic meters (19,813 gallons) but less than 151 cubic meters (39,890 gallons) with a true vapor pressure less than 15 kilopascals, is only subject to paragraphs (a) and (b) of 40 CFR 60.116b.

Each tank's capacity (20,000 gallons) falls within the 40 CFR 60.110b(c) applicable range of 75 cubic meters (19,813 gallons) and 151 cubic meters (39,890 gallons) and the true vapor pressure (1.3 E-8 kPa) is less than the 40 CFR 60.110b(c) applicable level of 15 kPa. Therefore, only Paragraphs (a) and (b) of 60.116b apply.

Pursuant to 40 CFR 60.116b(a) and (b), the owner or operator shall, for each vessel, keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

Said records shall be kept for the life of the tanks.

**(b) National Emission Standards for Hazardous Air Pollutants (NESHAPs):**

After the proposed modification, there are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.

**State Rule Applicability**

**(a) Entire State Rule Applicability:**

**(1) 326 IAC 1-7 (Stack Height Provisions):**

The stack height provisions of 326 IAC 1-7 still apply. The proposed equipment will not affect the status of these requirements.

**(2) 326 IAC 2-2 (Prevention of Significant Deterioration)**

The 326 IAC 2-2 Prevention of Significant Deterioration (PSD) requirements do not apply because no source criteria pollutant emissions exceed the applicable level of 250 tons per year and the source is not one of the 28 listed source categories.

**(3) 326 IAC 2-6 (Emission Reporting):**

The emission reporting requirements of 326 IAC 2-6 still do not apply because the source PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO emissions after the proposed modification are less than the Tippecanoe County applicable level of 100 tons per year.

**(4) 326 IAC 2-8 (FESOP):**

The existing limits that keep the source from being subject to the Part 70 requirements of 326 IAC 2-7 still apply because the proposed equipment will not affect the status of these limits.

**(5) 326 IAC 2-8-4(9) (Preventive Maintenance Plan)**

The 326 IAC 2-8-4(9) preventive maintenance plan requirements still apply. The proposed equipment will not affect the status of these requirements.

**(6) 326 IAC 4-1 (Open Burning):**

The requirements of 326 IAC 4-1 still apply. The proposed equipment will not affect the status of these requirements.

**(7) 326 IAC 5-1 (Visible Opacity Limitations):**

The requirements of 326 IAC 5-1 still apply. The proposed equipment will not affect the status of these requirements.

**(8) 326 IAC 6-4 (Fugitive Dust Emissions):**

The fugitive dust requirements of 326 IAC 6-4 still apply. The proposed equipment will not affect the status of these requirements.

**(9) 326 IAC 6-5 (Fugitive PM Emissions):**

The fugitive PM emission requirements of 326 IAC 6-5 still apply. The proposed equipment will not affect the status of these requirements.

**(b) Individual Unit Sate Rules, Proposed Liquid Asphalt Storage Tanks:**

**(1) 326 IAC 2-4.1 (New Source Toxics Control)**

The requirements of 326 IAC 2-4.1-1 do not apply to the proposed modification because the single and combined HAP emissions are less than the respective applicable levels of 10 and 25 tons per year.

**(2) 326 IAC 8-4-3:**

The requirements of 326 IAC 8-4-3 do not apply to proposed Tanks 13A and 16A because each tank's capacity (20,000 gallons) is less than the applicable capacity of 39,000 gallons.

**(3) 326 IAC 8-9:**

The requirements of 326 IAC 8-9 do not apply to proposed Tanks 13A and 16A because the source is not located in any of the applicable counties (Lake, Porter, Clark, or Floyd).

**(4) 326 IAC 8-1-6:**

Although there are no other Article 8 rules that apply, the requirements of 326 IAC 8-1-6 do not apply to the proposed tanks because the VOC unrestricted potential to emit (UPTE), 0.75 tons per year, is less than the applicable level of 25 tons per year.

**Changes to the Permit**

The following lists the changes to the existing permit that are necessary to incorporate the proposed equipment. All added language is indicated in bold type. All deleted information is struck-out.

**(1) Condition A.3:**

Condition A.3 shall be revised as follows to remove existing heater 12, add new heater 12, remove existing Tank 13A, and add new tanks 13A and 16A.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) three (3) asphalt storage tank heaters, identified as emission unit Nos. 13B, 14B, and 15B, each burning natural gas or No. 2 distillate fuel oil, each rated at 0.634, 0.630, and 0.630 MMBtu per hr, respectively, and each exhausting at one (1) stack, identified as SV3B, SV4B, SV5B, respectively;
- (b) two (2) hot oil heaters, identified as emission unit Nos. 12 and 22, each burning natural gas or No. 2 distillate fuel oil, ~~each rated at 1.333~~ **1.86** and 2.82 MMBtu per hour, respectively, ~~and each with emissions exhausting at one (1) stack, through Stacks identified as SV2 and SV8, respectively;~~
- (c) ~~three (3)~~ **two (2)** liquid asphalt storage tanks, identified as Tanks ~~13A, 14A and 15A~~, each with a maximum storage capacity of 27,000 gallons, ~~and each with emissions exhausted at through one (1) stacks, identified as SV3A, SV4A, and SV5A, respectively, and two (2) 20,000 gallon liquid asphalt storage tanks, identified as Tanks 13A and 16A, with emissions exhausted through Stacks SV3A and SV6A, respectively;~~

.....

**(2) Condition D.1.6:**

Condition D.1.6 shall be amended as follows to include the revised re-refined oil usage limit.

D.1.6 Re-refined Waste Oil and Equivalent Usage [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the sulfur content of the re-refined waste oil used in the 121 MMBtu per hour burner for the aggregate dryer shall not exceed 0.75 percent.
- (b) the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~1,552,290~~ **476,699** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO<sub>2</sub> emissions are limited below 100 tons per year.

.....

**(3) Unit Description of Section D.3:**

The unit description of Section D.3 shall be amended as follows to include proposed tanks 13A and 16A.

**SECTION D.3 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]:**

Insignificant Activity

- (ra) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);
- (b) two (2) 20,000 gallon liquid asphalt storage tanks, identified as Tanks 13A and 16A, with emissions exhausted through Stacks SV3A and SV6A, respectively;**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**(4) New Condition D.3.2:**

New Condition D.3.2 shall be added as follows to include the 40 CFR 60, Subpart Kb requirements associated with Tanks 13A and 16A.

**D.3.2 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]**

**Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the owner or operator shall, for Tanks 13A and 16A, keep readily accessible records showing the dimension and capacity of the storage tanks.**

**Said records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit except that the records shall be kept for the life of the respective tanks.**

**(5) Re-refined Oil Usage Quarterly Report Form:**

The re-refined oil usage quarterly report form shall be amended as follows to reflect the new re-refined oil usage limit.

Limit: the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 121 MMBtu per hour burner for the aggregate dryer shall be limited to ~~1,552,290~~**476,699** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.6(c) shall be used.

**Conclusion**

The proposed tanks shall be constructed and operated according to the provisions of the existing permit and First Significant Permit Revision 157-17425-05062.